

REMARKS:

In Relating to Claim Rejections - 35 USC 112

The deficiencies for the claims 6, 8, 11 and 15 indicated by the Examiner have been corrected in the amended Claims.

In Relating to Rejections - 35 USC 102

"The distinction between rejections based on **35 U.S.C. 102** and those based on **35 U.S.C. 103** should be kept in mind. Under the former, the claim is anticipated by the reference. No question of obviousness is present. In other words, for anticipation under **35 U.S.C. 102**, **the reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present.** Whereas, in a rejection based on **35 U.S.C. 103**, the reference teachings must somehow be modified in order to meet the claims. The modification must be one which would have been obvious to one of ordinary skill in the art at the time the invention was made. See **MPEP § 2131 - § 2146** for guidance on patentability determinations under **35 U.S.C. 102** and 103."

Regarding the Claims 1-3 are rejected under USC 102 (b) as being anticipated by Okamura (3616169):

1. The yarn of animal collagen of claim 1 is totally different from the nonwoven fabric of Okamura as follows:

a. The yarn of animal collagen of claim 1 is a kind of yarn which is able to be woven for textile products. But, Okamura discloses a nonwoven fabrics of **chromed collagen fibers** (please see the title of Okamura). Yarn is different from fabric. Yarn is made from spinning fabrics. Some fabric is impossible for spin as short or hard.

The chromed collagen fibers of Okamura are nonwoven fabric. Okamura says that "It is to be noted that the minimum length of the chromed collagen fiber with which it can still entwine with synthetic fibers blended in the present invention is about 1 cm. **Chrome collagen fiber which is shorter does not have adequate entwining ability.**" (Okamura, column 6, lines 5-9)

b. In the yarn of animal collagen fiber of claim 1 the collagen fibers appear bunchy and several thinner bunchy collagen fibers, which incorporate other textile fibers or other collagen fibers to form a kind of continuous blended fiber bundles, then are spun as yarn of animal collagen fiber. But in Okamura the combination between the chrome collagen fiber with collagen fiber and collagen fiber with other fiber is by content of binders impregnated. (see Okamura, column 6, lines 12-14)

c. In claim 1 the yarn of animal collagen fiber is able to be woven for textile products. But in Okamura the chromed collagen fibers are nonwoven fabric.

Therefore, the claim 1 is patentable under USC 102 (b) over Okamura.

The applicant does not agree with the Examiner's comments that:

"As to claims 1-3, Okamura (US' 169) teaches a kind of yarn of animal collagen fiber, comprising 1-100 wt% of dispersing collagen fiber derived from leathers and/or animal skins, and 0-99 wt% of textile fiber, said collagen fiber and textile fiber being twisted together (chromed collagen fibers obtained by chemical or physical treatment of the derm or true skin of natural leather, see col. 1, lines 44-49; yarn which has been spun and twisted from a fibrous mixture of cotton and chromed collagen fiber, see col. 5, lines 9-11); the yarn wherein the collagen fiber is derived from at least one kind of animals including cattle, sheep, horses, dogs, pigs, deer, rabbits, crocodiles and snakes (chromed collagen fibers obtained by chemical or physical treatment of the derm or true skin of natural leather, see col. 1, lines 44-49; it is noted that natural leather must be derived from at least one kind of animal); the yarn of animal collagen fiber wherein the textile fiber is at least one of natural fibers and synthetic fibers including cotton, hemp, wool, silk, terylene, acrylic, nylon, polyamide, and viscose staple (nylon twisted with chromed collagen fiber, see Example 3; cotton twisted with chromed collagen fiber, see Example 4)."

The citation of the content of Okamura col. 1, lines 44-49 is as follows:

"The nonwoven fabric of the invention consists essentially of chromed collagen fibers, which have been separated from chromed leather, having a fiber length of about 1 to 5 cm. or a mixture of the chromed collagen fiber and at least one other natural or synthetic fiber."

Also, in Examples 3 and 4, Okamura only teaches "Webs and shaped articles were produced from a blend of nylon fiber" and "the chrome collagen fiber which is shorter does not have adequate entwining ability." Okamura does not say nylon twisted with chromed collagen fiber, and cotton twisted with chromed collagen fiber.

The citation clearly shows the underlined parts of Examiner's comments are a personal imagine rather than Okamura's disclose.

In fact Okamura discloses "a **nonwoven fabric** consisting essentially of chromed collagen fibers separated from chromed leather and having a fiber length of about 1 to 5 cm. or a mixture of said chromed collagen fiber with at least one of other natural or synthetic fibers, said fabric being free of binders, and said collagen fibers being highly **entwined** and providing a high degree of moisture absorption-release capacity."

The chromed collagen fibers disclosed by Okamura cannot be spun to become yarn and it is for making nonwoven fabrics only.

2. The claims 2 and 3 are dependent claim of claim 1, they possess all new features of claim 1 and adding their own new features. Therefore, the claims 2 and 3 are patentable under USC 102 (b) over Okamura.

In Relating to Rejections - 35 USC 103

"To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the

knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir.1991). See MPEP 2143-2143.03 for decisions pertinent to each of these criteria."

Regarding claims 4, 8-9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamura in view of Steffan (4404033)

3. The claim 4 is a process for manufacturing the yarn of animal collagen fiber of claim 1, comprising the following steps: **choosing tanned leather materials**, loosening fibers, assorting, blending, carding, drawing and twisting, wherein an opener is used to loose fibers.

The applicant agrees with the Examiner's comment that "Okamura fails to teach or disclose a process for manufacturing the yarn."

Steffan discloses a "Method of making collagen fibers for surgical use".

Okamura in view of Steffan does not teach using tanned leather materials as the starting material or using tanning step in their method. Furthermore, Okamura in view of

Steffan does not teach the processes of drawing and spinning the animal collagen fibers with textile fibers to become a yarn of animal collagen fiber.

The method of claim 4 provides feasible method for making yarn of animal collagen fiber from scrap of leather. It makes natural resource used more sufficiently and reasonably and is especially important in current green revolution.

Therefore, the claim 4 is patentable under 35 U.S.C. 103(a) over Okamura, in view of Steffan as they does not teach the method for making animal collagen fiber by the process including tanning step and spinning step.

4. The claims 8-9, 10 and 11 are dependent claim of claim 4, they possesses all new features of claim 4 and adding their own new features. Therefore, the claims 8-9, 10 and 11 are patentable under U.S.C. 103 (a) over Okamura in view of Steffan.

Regarding claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamura in view of Steffan, further in view of Fujii et al (3314861)

5. Claim 5 is a process for manufacturing the yarn of animal collagen fiber from rawhide materials. The process includes a step of tanning the rawhide materials.

The Fujii discloses "method for solubilizing insoluble collagen fibers. It is a totally different process from the claim 5. Okamura in view of Steffan, further in view of Fujii et al does not teach a process for manufacturing the

yarn of animal collagen fiber from rawhide materials, in which the rawhide materials is tanned for loosening the animal collagen fiber

Okamura in view of Steffan and Fujii does not teach using tanned leather materials as the starting material or using tanning process in their method. Furthermore, Okamura in view of Steffan and Fujii does not teach the processes of drawing and spinning the animal collagen fibers with textile fibers to become a yarn of animal collagen fiber.

Therefore, the claim 5 is patentable under 35 U.S.C. 103(a) over Okamura, in view of Steffan, further in view of Fujii et al.

The claims 12, 13, 14, 15, 16 and 17 are dependent claims of claim 5, they possess all new features of claim 5 and adding their new features. Therefore, the claims 12, 13, 14, 15, 16 and 17 are patentable under U.S.C. 103 (a).

For all of the above reasons, applicant submits that the specification drawings and claims are now in proper form, and that the claims all define patentably over the prior art. Therefore, applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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